

EFFECTS OF PERFORMANCE FEEDBACK IN ORGANIZATIONAL SETTINGS

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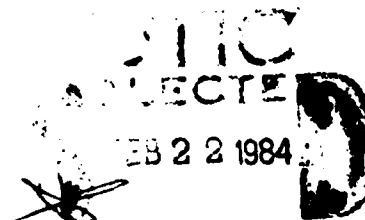
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A review of the performance feedback literature by Ilgen, Fisher, and Taylor (1977) led to the development of a model of performance feedback. This model described the effects of various dimensions of feedback on psychological processes and behavior. The present report is an empirical investigation of some aspects of that model. One hundred and fifty employees in a large manufacturing company participated in the research. These employees were grouped (continued)		

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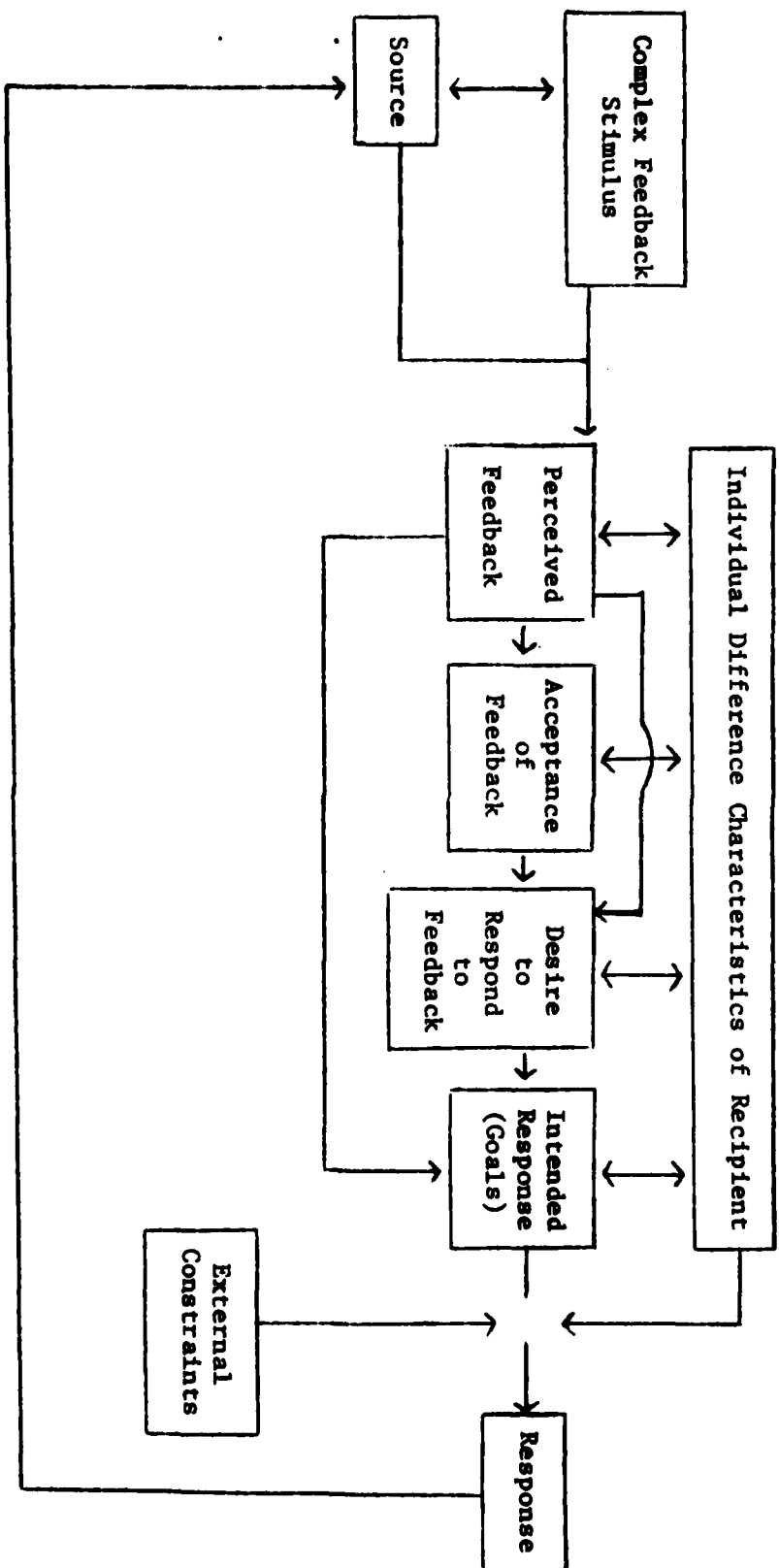
EFFECTS OF PERFORMANCE FEEDBACK IN ORGANIZATIONAL SETTINGS

Performance feedback is widely recognized as an essential condition for motivation and for learning in organizational as well as other settings (Adams, 1968; Ammons, 1956; Annett, 1969; Bilodeau, 1966; Locke, Cartledge, and Koeppel, 1968; Sassenrath, 1975). Yet, in spite of the large and varied literature, generalizations which can be applied to organizational settings are difficult to obtain. Ilgen, Fisher, and Taylor (1977) recognized this and offered a review of the literature on performance feedback in an attempt to deal with this deficiency. This review culminated with a model of performance feedback which recognizes the dimensions of feedback found in organizations and hypothesizes effects of these dimensions on behavior in organizations.

According to Ilgen et al (1977), feedback is seen as a complex stimulus which impacts on the individual and eventually leads to influence his or her response. This complex stimulus is paired with the source from which the feedback originates. Therefore, from the individual's standpoint, it is often very difficult to separate the effects of the source and the effects of the feedback per se upon the individual. As a result, the feedback model stresses both characteristics of the feedback stimulus itself as well as those of the sources from whom it originates in order to evaluate the impact of feedback on individuals. Figure 1 represents a slight modification of the model described by Ilgen et al (1977). A brief discussion of this model is in order. Note that the complex feedback stimulus reaches the individual and is transformed into a perception of the feedback. Very frequently, it is assumed that the perceived feedback is the same as

Figure 1^a

Model of the Effects of Feedback on Responses of Individuals



^a Adapted from Ilgen, Fisher, and Taylor, 1977

that sent to the individual in question. This assumption is prevalent especially in research on knowledge-of-results. Typically, an individual is told that his or her performance is at a given level and it is assumed that this information is perceived as communicated (Baller, 1970; Chapanis, 1964; Cummings, Schwab, and Rozen, 1971; Gibbs and Braun, 1965; Locke, 1967; Locke et al, 1968). Although such an assumption is quite reasonable in the types of laboratory research typically employed to test knowledge of results effects (e.g., Locke, 1967), in performance settings with employees or students in on-going organizations, the assumption is much less acceptable. In the latter settings, feedback is often vague, leaving considerable room for individual interpretation. Therefore, the accuracy with which feedback information is received is a major concern in field settings (McCall and Devries, 1976).

The feedback, once perceived, provides inputs for three components leading to the individual's response according to the Ilgen et al model (see Figure 1). The first of these, acceptance of feedback, is based upon a variety of perceptions about the feedback received and about characteristics of the individual receiving the feedback. It was hypothesized by the authors that, in most cases, a prerequisite for any response to feedback is a belief on the part of the recipient that the feedback is reasonable. If he or she does not accept it due to a lack of credibility for the source or for any other reason, it is unlikely that there will be a desire to respond to it unless the source possesses sufficient power to make compliance necessary. Compliance to feedback without its acceptance is represented in the model by the links from perceptions to motivation and intended responses which bypass acceptance. Feedback, for example, may influence behavior in cases in which the person providing the feedback is sufficiently powerful to

demand a response regardless of whether or not the individual accepts the feedback as valid.

The motivational function of feedback is represented as a separate box in Figure 1. This function has as its input various characteristics of the perceived feedback as well as perceptions about the sources' power to compel a response to the feedback. In addition, the degree to which the feedback is accepted influences the desire of the individual to respond to it. Findlly, individual differences are assumed to enter into the motivational responses to feedback.

According to the model, the intended response is based upon the level of the individual's desire to respond to the feedback and upon information he or she possesses about the nature of the response. The informational component which is shown by the lower line from the perceptions to intended response represents the directional nature of feedback which guides the individual's selection of a particular response.

Finally, a distinction is made between the desired response and the actual response to emphasize the fact that often the desired response differs from the observed due to constraints beyond the individual's control. Many of these constraints occur in the job setting. For example, the lack of support personnel may greatly limit a manager's range of responses to some performance feedback given in the last appraisal interview. Regardless of how much he or she may intend to accomplish, if the support personnel are not available, the actual response in terms of performance will be less than he or she desired.

Constraints may also be within the individual (internal constraints). These are represented by the line from the individual differences to the link between actual and desired responses. The most commonly mentioned

internal constraint is that of ability (Jones and Davis, 1965). If the individual does not possess the capability to respond regardless of the desire to respond, the response will not be forthcoming.

The model described here provided the basis for the present research. An instrument was developed and is described in an earlier report (Ilgen, Matte, Dugoni, Fisher, and Taylor, 1978) which provided a way to assess the nature of the feedback and the source from which it originated. Additional items were developed in order to tap the psychological and behavioral responses suggested by the model of Figure 1. The purpose of this report is to describe the research which related the feedback to the psychological responses.

METHOD

Sample

The participants in the study were all employees in a large manufacturing plant in the midwest. Groups of three participants were randomly selected with the following restrictions. First, all three members were from the same work group and consisted of a supervisor and two subordinates. The subordinates were selected such that each had worked for the supervisor long enough to have attained a formal performance appraisal from that specific supervisor. Three-person groups were selected randomly from the fifteen-hundred employees in the company. The selection was made in an attempt to represent a wide range of task specialties -- manufacturing, research and development, accounting, sales, etc. Inspection of the job characteristics of the sample selected indicated that this goal was met.

Each one of the one hundred and fifty-six employees selected in this manner was sent a letter asking for his or her participation in the research. A total of 150 employees completed the questionnaires for the research and from these there were 45 complete three-person groups. Several demographic characteristics of the participants are displayed in Table 1.

Procedure

Employees who agreed to participate in the research were scheduled to appear in a large auditorium at one of two times to administer questionnaires. When they reported to the auditorium, the purpose of the research as well as the nature of the questionnaires was explained to them and the questionnaires were distributed. They then completed the questionnaires. Each individual, when he or she had completed the instrument, brought it

Table 1

Demographic Characteristics of the Sample

<u>Individuals</u>	<u>Mean</u>	<u>Range</u>
Subordinates (n = 100)		
Age in Years	42.15	21-61
Educational Level	4.99*	1-7
Years with the Company	19.54	3-42
Years on this Job	8.60	1-34
Years with this Supervisor	4.20	1-18
Supervisors (n = 50)		
Age in years	44.46	29-59
Educational Level	5.66*	4-7
Years with the Company	21.14	4-37
Years on this Job	7.63	1-24

*Educational level was rated on a 7-point scale defined as follows:

- | | |
|----------------------------|-----------------------|
| 1 = Some grade school | 5 = Some college |
| 2 = Grade school completed | 6 = Bachelor's degree |
| 3 = Some high school | 7 = Graduate school |
| 4 = High school completed | |

forward and returned it to the experimenters along with a signed statement releasing the data for research. It was not necessary to debrief the participants because the research had been explained to them fully prior to their filling out of the questionnaire.

Measures

Feedback Dimensions. The measures obtained from this research were divided into two classes. The first class dealt with measurement of the feedback stimulus and the source from which the feedback was received. Table 2 lists the dimensions of feedback and the nature of the items used to measure it. Two things should be noticed specifically from that table. First, note that each of the dimensions on the far left is measured from both a positive and a negative standpoint. Column two indicates this. Second, note that with two exceptions each dimension is also paired with five sources. The two exceptions are the dimensions dealing with the manner in which feedback is given and whether or not the feedback was public or private. For the latter two only interpersonal sources were included. The table also lists the internal consistency reliabilities for each measure and the test-retest reliabilities for these measures. The reliability data is explained in more detail by Ilgen, Matte, Dugoni, Fisher, and Taylor (1978).

At times the feedback dimensions listed in Table 2 were also used to form composite dimensions by simply adding the items that comprised two or more of the dimensions. For example, feedback on each dimension was assessed for each source collapsing across sign. In the case of the timing of feedback, this was done by combining the items for the timing of both positive and negative feedback from the supervisor, co-workers, etc. Composite dimensions were formed across sources, across sign collapsed over sources,

a
Table 2

Feedback Dimensions Measured in Terms of the Sign
of the Feedback and the Source

<u>Feedback Dimension</u>	<u>Sign</u>	<u>Source</u>	<u>Reliability Internal Consistency</u>	<u>Test-Retest (1 Month Interval)</u>
Timing	Positive (+)	Supervisor	.84	.53
"	Negative (-)	"	.80	.63
"	+	Co-workers	.63	.18
"	-	"	.61	.60
"	+	Subordinates	.47	.56
"	-	"	.64	.61
"	+	Others	.66	.63
"	-	"	.33	.45
"	+	Self	.64	.58
"	-	"	.37	.38
Specificity	+	Supervisor	.81	.56
"	-	"	.84	.70
"	+	Co-workers	.73	.44
"	-	"	.79	.24
"	+	Subordinates	.80	.55
"	-	"	.71	.50
"	+	Others	.63	.50
"	-	"	.75	.42
"	+	Self	.42	.20
"	-	"	.59	.54
Frequency	+	Supervisor	.70	.77
"	-	"	.53	.69
"	+	Co-workers	.73	.56
"	-	"	.49	.55
"	+	Subordinates	.72	.34
"	-	"	.71	.56
"	+	Others	.58	.32
"	-	"	.39	.33
"	+	Self	.33	.68
"	-	"	.00	.86
Manner	+	Supervisor	.67	.42
"	-	"	.72	.88
"	+	Co-workers	.58	.49
"	-	"	.70	.84
"	+	Subordinates	.61	.67
"	-	"	.78	.76
"	+	Others	.58	.93
"	-	"	.71	.82

Table 2 Continued

<u>Feedback Dimension</u>	<u>Sign</u>	<u>Source</u>	<u>Reliability Internal Consistency</u>	<u>Test-Retest (1 month Interval)</u>
Public vs Private	+	Supervisor	.73	.39
"	-	"	.53	.45
"	+	Co-workers	.64	.53
"	-	"	.71	.49
"	+	Subordinates	.55	.14
"	-	"	.79	.73
"	+	Others	.60	.63
"	-	"	.58	.53

a

From Ilgen, Matte, Dugoni, Fisher, and Taylor, 1978

and across both sign and source for an overall index of the dimension in question.

Reactions to Feedback. The second set of measures for this research contained scales designed to tap the psychological processes affected by feedback. For the most part, these scales were designed to deal with those elements in Figure 1 of the model which appear to the right of the far left hand boxes. That is, they refer to those factors other than the complex feedback stimulus and the source as depicted in Figure 1. Two concepts were not measured in the research. These were constraints and perceived feedback. Since the purpose of the research was to explore whether measures of the feedback environment related to beliefs, motivation, and responses of those who received feedback and since constraints are not hypothesized to be related to the feedback but rather to moderate between desired responses and actual responses, constraints were not addressed at this point.

In addition, in order to evaluate perceived feedback, it is necessary to know the actual feedback received. Since, in a field study of this type, it was not possible to measure actual feedback, perceived feedback was not assessed.

Response Measures

Table 3 lists the descendant measures for the research. These are grouped according to the response category outlined in Figure 1 to which the measures were addressed. Each group is described below.

Acceptance of Feedback. To measure feedback acceptance, subordinates noted how accurate they believed their feedback was from each source. It was assumed that the more they believed the feedback was a true reflection of their own performance the more they would accept the feedback.

Table 3
Response to Feedback Measures

Category Represents:

<u>From Figure 1</u>	<u>Measure</u>
Acceptance	Accuracy of Feedback
Desire to Respond	Desire to Respond
Intended Response	Set Goals
Intended Response	Set Specific Goals
Intended Response	Set Difficult Goals
Intended Response	Motivated to Reach Goals
Response	Performance Rated by Supervisor
Response	Job Satisfaction
Response	Commitment

Desire to Respond. The motivational response to feedback was measured most directly by the individual's stated desire to respond to the feedback that was received from the source. As indicated in Table 3, one of the measured responses was the individual's desire to respond in line with the feedback given.

Intended Response. Intentions to respond were measured with reference to goal setting. Since the literature clearly indicated that goal specificity and goal difficulty were the most salient goal dimensions, a set of items was constructed to deal with each one of these. In addition, some items dealt only with the presence or absence of goals while a final set addressed the willingness or desire to behave in line with the goals that did exist.

Responses. The final set of items dealt with responses made by the individual to his or her work environment. All responses obviously were affected by many factors other than performance feedback. Nevertheless, a correlation between the feedback dimensions and responses represents a necessary if not sufficient condition for the links described in the model.

The response of most interest was that of performance. In this case, supervisors rated each subordinate on eight items. These items dealt with quality of work, appropriate use of time, effective work methods, interpersonal relations, efficiency, effort put into the job (2 items), and overall performance. Responses to the eight items were summed to give an overall performance rating.

Two other responses, job satisfaction and commitment, were collected not so much because they were addressed directly by the model, but because they were common outcome variables very much of concern in organizational settings. Job satisfaction was measured by the short form of the Minnesota

Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England, and Lofquist, 1967). Commitment was measured by the Porter and Smith (1970) scale. Each has been shown to have more than adequate internal consistency reliability.

Sample Sizes for Analyses

Before presenting the results, we should offer some summary statements about the data set. First of all, recall that data were collected from a supervisor and two subordinates within each work group. Each subordinate described his or her own feedback environment and responded to the scales of Table 3. Therefore, for analyses which correlated subordinate descriptions of the feedback environment with various responses outlined in Table 3 the sample size was 100 with two members from each group providing data. For those work groups in which only one of the two subordinates responded, it was still possible to use this one respondent's data set. Supervisors rated the performance of both members of the group so supervisory ratings of performance could be included in these analyses.

The primary reason that the number of cases for any particular correlation dropped below the numbers listed above was the fact that often the feedback dimension measured did not apply for a given individual. Take, for example, the items dealing with the timing of feedback from subordinates. Many of the subordinates in the sample did not themselves have anyone working under them. As a result, for all items dealing with feedback from subordinates, these individuals responded "not applicable." The correlations used only data from those individuals for whom the feedback dimension was relevant. As a result the analyses frequently were based on fewer than 100 cases. The lower numbers of cases were most apparent for feedback from others.

When supervisors described the feedback environment, they were instructed to do it for only one of the two subordinates. The questionnaire was too long to be filled out twice, and also it was felt the supervisors would not differentiate sufficiently between people if asked to do it twice. Therefore, correlations between supervisor descriptions of the feedback environment and subordinate responses were based upon a maximum n of 50. As was the case with subordinate descriptions of feedback, the actual n's were less than this when there was missing data or when the dimension did not apply, although in almost no case was missing data an issue.

RESULTS

Acceptance of Feedback

Acceptance of the feedback was assumed to be reflected in the extent to which subordinates believed the feedback they received from the source was accurate. Table 4 presents the correlations of subordinate ratings of the accuracy of feedback from the source in question with both subordinate and supervisor descriptions of feedback. By source in question we mean that, when feedback from supervisor is considered, the accuracy of feedback from supervisors was used; when co-workers were the source of feedback, accuracy of co-worker feedback was the accuracy measure, etc.

Several factors are immediately apparent from the accuracy data. First of all, perceptions of accuracy only correlate consistently with the focal's own rating of the nature of the feedback. This is consistent with the view that the subordinate's own perceptions should be more closely related to their own responses than the responses of someone else. Unfortunately, regardless of the appeal of this explanation psychologically, the issue of common method bias is an alternative explanation for the correlations that cannot be eliminated. However, given the fact that within any feedback dimension there exist some non-significant correlations for some sources, decreases the concern about method bias somewhat but certainly does not eliminate it.

Other patterns emerge when subordinate data are considered. First, of all the sources, supervisory feedback correlates positively with accuracy regardless of sign across all feedback dimensions. Secondly, the feedback from others is least related to perceptions of its accuracy. Finally,

Table 2

Correlations between Focal Subordinate Ratings of
the Accuracy of Feedback from Various Sources with Descriptions
of Feedback from the Subordinates Themselves and from their Supervisors

<u>Feedback Dimension</u>	<u>Focal Subordinate</u>	<u>Focal Supervisor</u>
Timing of Feedback		
Supervisor Positive	.80***	-.08
Supervisor Negative	.87***	.17
Co-worker Positive	.42***	-.31
Co-worker Negative	.21**	-.20
Subordinate Positive	.27**	-.17
Subordinate Negative	.32**	-.13
Others Positive	.04	.14
Others Negative	.07	-.03
Self Positive	.18**	na ^a
Self Negative	.22**	na ^a
Specificity of Feedback		
Supervisor Positive	.88***	.13
Supervisor Negative	.88***	.07
Co-worker Positive	.18*	-.28
Co-worker Negative	.04	-.22
Subordinate Positive	.28**	.40
Subordinate Negative	-.01	.34
Others Positive	.22**	.04
Others Negative	-.01	.06
Self Positive	.20**	na
Self Negative	.22**	na
Frequency of Feedback		
Supervisor Positive	.90***	.02
Supervisor Negative	.88***	.09
Co-worker Positive	.44***	.00
Co-worker Negative	.35***	-.18
Subordinate Positive	.28**	-.40*
Subordinate Negative	.11	-.24
Others Positive	.26***	.06
Others Negative	.28***	-.09
Self Positive	.45***	na
Self Negative	.11	na

Table 4 Continued

<u>Feedback Dimension</u>	<u>Raters of Feedback Dimensions</u>	
	<u>Focals' Subordinates</u>	<u>Focals' Superiors</u>
Manner Feedback Given		
Supervisor Positive	.97***	.17
Supervisor Negative	.97***	.20
Co-worker Positive	.46***	-.07
Co-worker Negative	.45***	.00
Subordinate Positive	.84***	.55**
Subordinate Negative	-.07	.56**
Others Positive	.17	.20
Others Negative	.55***	.19
Public vs Private		
Supervisor Positive	.74***	-.22
Supervisor Negative	.66***	.08
Co-worker Positive	.28***	-.01
Co-worker Negative	.08	.22
Subordinate Positive	.29***	.08
Subordinate Negative	.03	.55*
Others Positive	.22***	.36
Others Negative	.26***	.36

a

Self only referred to focals so was not included for superiors

* $p \leq .10$ ** $p \leq .05$ *** $p \leq .01$

within each dimension, the quicker the feedback, either positive or negative, the more accurate it is perceived to be. For specificity, only feedback from the supervisor is highly related to perceptions of accuracy although co-workers, subordinates, others and the self show weak positive correlations with positive feedback.

Desire to Respond

As was the case with other variables, subordinates described their responses to types of feedback as well as the feedback itself whereas supervisors only described the feedback of the subordinate. Table 5 reports the correlations between feedback descriptions and desire to respond. As has been the case with all other variables, supervisory descriptions of feedback were unrelated to subordinates' desire to respond in line with the feedback.

On the other hand, some significant relationships between subordinate descriptions and desire to respond were found. Specifically, the timing of subordinate feedback, both positive and negative, correlated with desire to respond. In this case, the more that positive feedback from subordinates tended to follow soon after behavior, the greater was the desire to respond. Negative feedback, on the other hand, correlated negatively with desire to respond such that the sooner it was received the less they wanted to respond.

Other than timing, the manner in which feedback was administered was the only other dimension correlated with desire to respond. In this case, a positive manner for positive supervisory feedback was related to a lower desire to respond. In addition, the reverse occurred for negative feedback from the supervisor. Finally, when both positive and negative feedback from subordinates were combined, the more positive the manner, the greater the desire to respond.

Table 5

Correlations between Feedback Dimension Descriptions from either Subordinates or Superiors and Subordinate Desire to Respond to the Feedback¹

Feedback Dimensions	Correlations with Subordinate Descriptions of Feedback		Correlations with Supervisor Descriptions of Feedback			
	Subordinate Desire to Respond to Feedback...		Subordinate Desire to Respond to Feedback...			
	Positive from Source	Negative from Source	Pos. and Neg. from Source	Positive from Source	Negative from Source	Pos. and Neg. from Source
Timing of Feedback						
Supervisor Positive	-.20			-.13		
Supervisor Negative		-.12			-.02	
Co-worker Positive	.06			.00		
Co-worker Negative		-.08			-.04	
Subordinate Positive	.36***			.26		
Subordinate Negative		-.31**			-.14	
Others Positive	-.16			-.06		
Others Negative		-.17			.06	
Self Positive	-.11			-.18		
Self Negative		-.20			-.20	
Supervisor			.09			.09
Co-workers			.09			-.15
Subordinates			-.01			-.22
Others			-.02			-.10
Self			.00			-.09

Table 5 Continued

<u>Feedback Dimensions</u>	<u>Correlations with Subordinate Descriptions of Feedback</u>		<u>Correlations with Supervisor Descriptions of Feedback</u>		
	<u>Subordinate Desire to Respond to Feedback...</u>		<u>Subordinate Desire to Respond to Feedback...</u>		
	<u>Positive from Source</u>	<u>Negative from Source</u>	<u>Positive from Source</u>	<u>Negative from Source</u>	<u>Pos. and Neg. from Source</u>
<u>Frequency of Feedback</u>					
Supervisor Positive	-.05		-.10		
Supervisor Negative		-.25**		.12	
Co-worker Positive	-.01		-.03		
Co-worker Negative		-.29**		.09	
Subordinate Positive	.07		-.06		
Subordinate Negative		-.27**		-.08	
Others Positive	.04		-.18		
Others Negative		-.16		-.17	
Self Positive	.00		-.25*		
Self Negative		.11		-.14	
Supervisor		.06			-.04
Co-workers		.13			-.09
Subordinates		.11			.00
Others		.08			-.12
Self		-.00			-.15

Table 5 Continued

Feedback Dimensions	Correlations with Subordinate Descriptions of Feedback		Correlations with Supervisor Descriptions of Feedback			
	Subordinate Desire to Respond to Feedback...		Subordinate Desire to Respond to Feedback...			
	Positive from Source	Negative from Source	Pos. and Neg. from Source	Positive from Source	Negative from Source	Pos. and Neg. from Source
Specificity of Feedback						
Supervisor Positive	-.02			.04		
Supervisor Negative		-.01			-.04	
Co-worker Positive	-.10			.06		
Co-worker Negative		-.05			.13	
Subordinate Positive	.02			.05		
Subordinate Negative		-.22			-.29*	
Others Positive	.10			.08		
Others Negative		-.03			.11	
Self Positive	-.01			-.15		
Self Negative		-.10			-.07	
Supervisor			.19			-.04
Co-workers			.08			-.04
Subordinates			.12			-.09
Others			.06			-.27*

Table 5 Continued

Feedback Dimensions	Correlations with Subordinate Descriptions of Feedback			Correlations with Supervisor Descriptions of Feedback		
	Subordinate Desire to Respond to Feedback...			Subordinate Desire to Respond to Feedback...		
	Positive from Source	Negative from Source	Pos. and Neg. from Source	Positive from Source	Negative from Source	Pos. and Neg. from Source
Manner Feedback Given						
Supervisor Positive	-.26**			-.06		
Supervisor Negative		.49***			.01	
Co-worker Positive	.00			.15		
Co-worker Negative		.16			-.04	
Subordinate Positive	.21			-.15		
Subordinate Negative		.39***			-.03	
Others Positive	.21*			-.16		
Others Negative		.25**			-.09	
Supervisor			.12			.01
Co-workers			.07			-.06
Subordinates			.37***			-.05
Others			-.04			.02

Table 5 Continued

Feedback Dimensions	Correlations with Subordinate Descriptions of Feedback		Correlations with Supervisor Descriptions of Feedback	
	Subordinate Desire to Respond to Feedback...		Subordinate Desire to Respond to Feedback...	
	Positive from Source	Negative from Source	Positive from Source	Negative from Source
Public-Private Feedback				
Supervisor Positive	.25**		-.19	
Supervisor Negative		.40***		-.11
Co-worker Positive	-.03		.24*	
Co-worker Negative		.28**		.06
Subordinate Positive	-.07		-.07	
Subordinate Negative		.46***		.09
Others Positive	-.29***		.15	
Others Negative		.44***		-.04
Supervisor				.08
Co-workers				.06
Subordinates				.30**
Others				.23

Table 5 Continued

Feedback Dimensions	Correlations with Subordinate Descriptions of Feedback			Correlations with Supervisor Descriptions of Feedback		
	Subordinate Desire to Respond to Feedback...			Subordinate Desire to Respond to Feedback...		
	Positive from Source	Negative from Source	Pos. and Neg. from Source	Positive from Source	Negative from Source	Pos. and Neg. from Source
Consistency of Feedback						
Supervisor			.05			.10
Co-workers			-.14			-.01
Subordinates			-.18			.08
Others			-.12			-.03
Self			-.21*			-.04

1 The sample sizes vary for the individual correlations primarily because of differences in the frequency of having co-workers, subordinates, or others from whom to receive feedback. The significance levels reflect differences in sample sizes.

* $p \leq .10$

** $p \leq .05$

*** $p \leq .01$

Intended Response

Intended responses were measured by ratings which dealt with goals. Four goal characteristics were assessed. These were: (1) perceptions of whether or not the subordinates set goals, (2) the specificity of the goals, (3) their difficulty, and (4) how motivated the individual was to respond to them.

Tables 6 and 7 show that subordinate descriptions of feedback correlated much more strongly with goal concepts than did superior descriptions. With one exception, supervisory description showed little systematic relationship to goal issues. The exception was the timing of feedback as it related to motivation. Table 7 shows that the supervisors' perception of the frequency of positive feedback from co-workers and both positive and negative feedback from subordinates correlated negatively with subordinate descriptions of their motivation to reach the goals. Negative correlations were also found when both positive and negative frequency measures were combined with regard to co-workers and subordinates. Thus the data indicate that the more frequent supervisors believed the subordinates received feedback from the sources described, the less the subordinates reported being motivated to reach their goals. No obvious explanation exists for this relationship. It is particularly surprising given the fact that the sign of the correlations between goal variables and subordinates' own descriptions are reversed.

Turning to the subordinate descriptions (Table 6) several interesting patterns were found. First, with respect to the timing of feedback, it is clear that the timing of feedback from the supervisor covaried with goal responses. The more they believed that feedback came soon after behavior the more they reported setting goals, setting specific goals, and being motivated to reach their goals.

Table 6

Correlations between Feedback Dimension Descriptions from Subordinates and Beliefs about Goals of Subordinates

<u>Feedback Dimensions</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
Timing of Feedback				
Supervisor Positive	.32***	.24*	.12	.32***
Supervisor Negative	.33***	.29***	.13	.44***
Co-worker Positive	.16	.14	.09	.11
Co-worker Negative	.16	.07	.06	-.05
Subordinate Positive	.01	.12	.13	.16
Subordinate Negative	-.01	.22	.25	-.03
Others Positive	.22*	.14	-.01	.16
Others Negative	.16	.15	.10	.13
Self Positive	.15	-.04	-.13	.07
Self Negative	.10	-.06	-.04	-.01
Supervisor	.36***	.29***	.13	.42***
Co-workers	.16	.07	.04	.03
Subordinates	.01	.19	.23*	.05
Others	.21*	.20	.08	.15
Self	.14	-.05	-.09	.03

Table 6 Continued

<u>Feedback Dimensions</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
Specificity of Feedback				
Supervisor Positive	.41***	.40***	.17	.26***
Supervisor Negative	.26*	.32***	.08	.33***
Co-worker Positive	.04	.03	-.14	.06
Co-worker Negative	.04	.02	-.00	.01
Subordinate Positive	.07	.04	.05	.15
Subordinate Negative	.01	.16	.19	-.03
Others Positive	.24**	.03	-.07	.13
Others Negative	.10	-.15	-.05	.06
Self Positive	.30***	.08	-.01	.26***
Self Negative	.30***	.10	-.00	.33***
Supervisor	.37***	.39***	.14	.34***
Co-workers	.04	.01	-.06	.04
Subordinates	.06	.13	.16	.07
Others	.19	-.09	-.07	.09
Self	.32***	.10	-.00	.32***

Table 6 Continued

<u>Feedback Dimensions</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
Frequency of Feedback				
Supervisor Positive	.22**	.32***	.12	.25**
Supervisor Negative	.11	.21**	.08	.16
Co-worker Positive	-.03	-.02	-.10	.15
Co-worker Negative	-.04	-.07	-.02	.06
Subordinate Positive	-.01	-.10	.02	.04
Subordinate Negative	.05	.06	.05	.03
Others Positive	-.02	-.16	-.25**	.13
Others Negative	-.04	-.21*	-.09	.05
Self Positive	.16	-.08	-.19	.14
Self Negative	.19	.02	-.07	.13
Supervisor	.17	.30***	.10	.22**
Co-workers	-.05	-.06	-.07	.13
Subordinates	.03	-.00	.05	.04
Others	-.04	-.25**	-.19	.11
Self	.20**	-.04	-.15	.15

Table 6 Continued

<u>Feedback Dimensions</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
<u>Manner Feedback Given</u>				
Supervisor Positive	.06	.03	-.17	.22**
Supervisor Negative	.04	.08	-.24**	.15
Co-worker Positive	.01	.02	-.26**	.09
Co-worker Negative	-.06	-.11	-.32	.19
Subordinate Positive	-.21	-.29**	-.13	.18
Subordinate Negative	-.04	-.12	-.11	.37
Others Positive	-.01	-.10	-.16	.24**
Others Negative	-.00	-.13	-.22*	.23*
Supervisor	.05	.06	-.22**	.20*
Co-workers	-.03	-.05	-.32***	.15
Subordinates	-.11	-.20	-.18	.32**
Others	-.00	-.09	-.20*	.26**

Table 6 Continued

Feedback Dimensions	Sets	Specific	Difficult	Motivation
	Goals	Goals	Goals	to Reach Goals
Private Feedback				
Supervisor Positive	-.08	-.06	.02	-.15
Supervisor Negative	.19	.07	-.03	.10
Co-worker Positive	-.07	-.12	-.01	-.11
Co-worker Negative	-.13	-.12	-.19*	.10
Subordinate Positive	-.00	.04	-.14	.20
Subordinate Negative	-.02	-.09	.27*	.38***
Others Positive	-.12	.01	.09	-.08
Others Negative	-.14	-.25	-.15	.14
Supervisor	.06	.00	-.00	-.05
Co-workers	-.13	-.14	-.14	.00
Subordinates	-.02	-.04	-.28**	.35**
Others	-.16	-.15	-.04	.04

Table 7

Correlations between Feedback Dimension Descriptions from Supervisors and Beliefs about Goals of Subordinates

<u>Feedback Dimension</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
<u>Timing of Feedback</u>				
Supervisor Positive	-.03	.02	-.21	.06
Supervisor Negative	.17	.17	.02	.03
Co-worker Positive	.12	-.05	.15	-.29*
Co-worker Negative	.24	-.01	.22	-.23
Subordinate Positive	-.22	-.27	.23	-.57**
Subordinate Negative	.30	.33	.10	-.43*
Others Positive	.16	-.31*	.01	.11
Others Negative	.12	-.05	.19	-.16
Self Positive	-.10	-.20	.13	.01
Self Negative	-.09	-.06	.11	-.05
Supervisor	-.21	-.05	-.19	-.12
Co-workers	-.00	-.06	.13	-.44**
Subordinates	-.55*	-.42	.05	-.41
Others	.08	.42*	.40*	-.50**
Self	.04	-.13	-.14	-.25

Table 7 Continued

<u>Feedback Dimension</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
Specificity of Feedback				
Supervisor Positive	.04	.11	.09	.08
Supervisor Negative	-.03	.16	.07	.17
Co-worker Positive	.40**	.15	.27	-.04
Co-worker Negative	.26	.17	.07	.13
Subordinate Positive	-.10	-.25	-.14	-.10
Subordinate Negative	.11	-.08	.12	-.02
Others Positive	-.02	-.21	-.22	.21
Others Negative	.10	-.20	-.23	.11
Self Positive	.14	.05	-.12	.12
Self Negative	.09	.01	-.17	.23
Supervisor	-.29	-.09	-.26	-.03
Co-workers	-.08	-.06	.07	.07
Subordinates	-.53*	-.21	-.24	-.29
Others	-.16	-.18	-.24	.38
Self	.10	-.23	-.14	-.16

Table 7 Continued

<u>Feedback Dimension</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
Frequency of Feedback				
Supervisor Positive	-.02	.14	-.20	.10
Supervisor Negative	-.02	-.10	.06	.10
Co-worker Positive	.24	.06	.09	.19
Co-worker Negative	.19	.05	.20	-.11
Subordinate Positive	.11	.14	.27	-.10
Subordinate Negative	.29	.18*	.47	.17
Others Positive	.24	.00	.05	.13
Others Negative	.06	-.12	.00	-.08
Self Positive	.00	.19	-.07	.11
Self Negative	-.13	.09	-.14	-.02
Supervisor	.08	-.03	-.01	-.38**
Co-workers	-.19	-.02	-.06	-.11
Subordinates	-.25	-.42	.00	-.43
Others	-.71***	-.30	-.29	-.03
Self	-.13	-.11	-.05	-.30*

Table 7 Continued

<u>Feedback Dimension</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	Motivation
				to Reach Goals
Manner Feedback Given				
Supervisor Positive	.01	.06	-.11	-.09
Supervisor Negative	-.05	-.12	-.02	-.12
Co-worker Positive	.15	-.00	.01	-.05
Co-worker Negative	-.29	-.32*	-.30*	.07
Subordinate Positive	.17	.05	.00	-.25
Subordinate Negative	.00	-.08	.01	.11
Others Positive	-.03	-.05	-.25	.21
Others Negative	.09	-.02	-.09	-.07
Supervisor	-.11	-.17	-.25	-.16
Co-workers	.10	-.12	-.36*	-.13
Subordinates	.14	.10	.27	-.06
Others	.10	-.02	-.22	.18

Table 7 Continued

<u>Feedback Dimension</u>	<u>Sets Goals</u>	<u>Specific Goals</u>	<u>Difficult Goals</u>	<u>Motivation to Reach Goals</u>
Public-Private Feedback				
Supervisor Positive	.11	.21	.27*	-.10
Supervisor Negative	-.01	.07	.08	-.11
Co-worker Positive	.09	.05	.06	-.02
Co-worker Negative	.07	-.01	-.04	.15
Subordinate Positive	.36	.58**	.26	.24
Subordinate Negative	-.14	-.16	-.44*	-.34
Others Positive	.14	.04	.16	.33*
Others Negative	-.04	-.10	-.01	.14
Supervisor	-.13	.19	.08	.02
Co-workers	-.22	-.23	-.42**	.23
Subordinates	.24	.14	-.17	.14
Others	-.34	.15	-.14	-.12

This pattern also held up for feedback specificity and, to some extent, for feedback frequency. In all cases, there was a definite tendency for the nature of the feedback from the supervisor to be related to the goal issues other than goal difficulty. In addition, feedback specificity of positive feedback from others correlated with setting goals and both positive and negative self feedback related positively to setting goals and motivation to reach them. Finally, the more frequently the focal persons reported receiving positive feedback from others the less difficult they felt their goals were. Perhaps those who had others from whom to receive positive feedback became complacent as they received frequent amounts of positive feedback from these others.

The pattern of significant correlations shifts somewhat when the more affectively oriented dimensions of manner and public versus private feedback are considered. Here the significant correlations tend to be negatively related to goal difficulty but positively related to motivation to reach the goals. These indicate that more pleasant or acceptable ways of receiving feedback may lead to setting lower goals, but the individuals are more committed to reaching these goals. Also, another factor in these data is contrary to the patterns for other dimensions. Correlations with beliefs about supervisors were less frequently significant than with beliefs about other individuals.

Responses to Feedback

Three responses to feedback were assessed. The one of greatest interest was supervisory ratings of performance. Table 8 presents correlations of both supervisory and subordinate descriptions of feedback with the performance as well as job satisfaction and commitment.

Table 8

Correlations between Subordinates' or Superiors' Descriptions of Feedback
and Subordinate Satisfaction, Commitment and Performance

<u>Feedback Dimensions</u>	<u>Feedback Dimension Description from Subordinates</u>			<u>Feedback Dimension Description from Superiors</u>		
	<u>Job Satisfaction</u>	<u>Commitment</u>	<u>Supervisor Performance Ratings</u>	<u>Job Satisfaction</u>	<u>Commitment</u>	<u>Supervisor Performance Ratings</u>
<u>Timing of Feedback</u>						
Supervisor Positive	-.39***	-.01	.01	-.12	.17	-.30**
Supervisor Negative	-.21**	-.15	.04	-.24*	.02	.03
Co-worker Positive	.00	-.06	-.09	.10	-.13	-.08
Co-worker Negative	.03	-.08	.18	.06	-.08	-.06
Subordinate Positive	-.08	-.10	.32	.33*	-.10	-.21
Subordinate Negative	.15	-.09	.41**	-.04	-.12	.01
Others Positive	-.09	.04	.42***	.06	-.21	.02
Others Negative	-.00	-.06	.17	-.14	-.09	.01
Self Positive	-.10	-.02	.08	.02	-.02	-.15
Self Negative	-.16	-.09	.05	-.16	-.05	-.08

Table 8 Continued

Feedback Dimensions	Feedback Dimension Description from Subordinates			Feedback Dimension Description from Superiors		
	Job Satisfaction	Commitment	Supervisor Performance Ratings	Job Satisfaction	Commitment	Supervisor Performance Ratings
Specificity of Feedback						
Supervisor Positive	-.41***	-.00	-.27*	-.03	-.11	.30**
Supervisor Negative	-.34***	-.03	-.18	-.07	-.17	.44***
Co-worker Positive	-.19*	-.09	-.31**	.00	-.07	.06
Co-worker Negative	-.01	-.09	-.27*	-.02	.01	.24
Subordinate Positive	-.16	.10	-.16	-.04	-.33	.03
Subordinate Negative	.10	-.04	-.13	.02	-.22	-.30
Others Positive	-.08	.04	-.25	.04	-.18	.07
Others Negative	-.14	-.06	-.27	.03	-.18	.20
Self Positive	-.17	.02	.04	-.00	-.11	-.17
Self Negative	-.14	.00	-.23	-.00	-.27*	-.09

Table 8 Continued

Feedback Dimensions	Feedback Dimension Description from Subordinates			Feedback Dimension Description from Superiors		
	Job Satisfaction	Commitment	Supervisor Performance Ratings	Job Satisfaction	Commitment	Supervisor Performance Ratings
Frequency of Feedback						
Supervisor Positive	-.32***	.02	-.19	-.23	.10	.36**
Supervisor Negative	-.11	-.20*	-.08	-.13	.12	.22
Co-worker Positive	-.20*	.02	-.24	-.14	-.10	-.10
Co-worker Negative	.09	-.10	-.09	-.13	.06	-.09
Subordinate Positive	-.05	.05	.03	.01	-.02	-.18
Subordinate Negative	.33**	-.01	.07	-.20	-.10	-.02
Others Positive	-.00	-.06	.28*	-.05	-.13	-.03
Others Negative	.07	-.07	-.05	-.30**	-.05	.08
Self Positive	-.01	.04	-.03	-.00	-.08	.07
Self Negative	.15	.12	-.05	-.03	-.01	.12

Table 8 Continued

<u>Feedback Dimensions</u>	<u>Feedback Dimension Description from Subordinates</u>			<u>Feedback Dimension Description from Superiors</u>		
	<u>Job Satisfaction</u>	<u>Commitment</u>	<u>Supervisor Performance Ratings</u>	<u>Job Satisfaction</u>	<u>Commitment</u>	<u>Supervisor Performance Ratings</u>
<u>Manner Feedback Given</u>						
Supervisor Positive	-.41***	-.00	-.03	-.14	.09	.40**
Supervisor Negative	-.32***	-.02	-.06	-.08	.11	.27*
Co-worker Positive	-.03	-.07	-.12	-.11	.21	.01
Co-worker Negative	-.07	-.08	-.10	-.04	-.02	-.01
Subordinate Positive	-.21	.26**	-.07	-.57	-.21	.27
Subordinate Negative	-.28**	.11	-.10	-.10	-.18	-.42**
Others Positive	.00	.18	.28	-.21	-.16	.13
Others Negative	.02	.07	.22	.19	-.11	.06

Table 8 Continued

<u>Feedback Dimensions</u>	<u>Feedback Dimension Description from Subordinates</u>			<u>Feedback Dimension Description from Superiors</u>		
	<u>Job Satisfaction</u>	<u>Commitment</u>	<u>Supervisor Performance Ratings</u>	<u>Job Satisfaction</u>	<u>Commitment</u>	<u>Supervisor Performance Ratings</u>
Public-Private Feedback						
Supervisor Positive	.22	.10	-.02	.05	-.12	-.16
Supervisor Negative	-.31***	.19*	-.22	-.04	.08	.37***
Co-worker Positive	.17*	-.09	-.15	-.06	.19	.01
Co-worker Negative	-.05	-.10	-.11	.02	-.09	.21
Subordinate Positive	-.10	.29**	-.16	-.24	-.08	-.13
Subordinate Negative	-.34***	.22*	-.05	.01	.06	-.25
Others Positive	-.11	.07	-.11	-.05	.13	.17
Others Negative	-.17	.05	.02	.08	.00	.02

* $p \leq .10$ ** $p \leq .05$ *** $p \leq .01$

Looking first at the timing of feedback, the more that subordinates believed their own subordinates gave them negative feedback quickly, the more they were rated as high performers. The same was true for positive feedback from others. On the other hand, there was a negative relationship between supervisor ratings of the timing of their positive feedback and their rating of performance. This may have been due to a possible confound between timing and the nature of the job. Jobs more narrow in scope which allow for quicker feedback tend to be simpler and may have lower ceilings as far as performance ratings are concerned. If this were the case, the favorable timing of the feedback may simply have reflected less complex jobs and ones which tended to lead to lower ratings of performance.

Looking at specificity, the sign reversed. Subordinates who perceived that they received specific positive feedback from supervisors and both positive and negative feedback from subordinates were rated lower than those who believed they received less specific feedback. For supervisor descriptions of specificity, on the other hand, more specific feedback from themselves was positively correlated with performance. However, it should be kept in mind that, with supervisors, both the performance rating and the description of feedback were provided by the same person.

Frequency of feedback only correlated with performance in two instances -- one for subordinate descriptions and one for supervisors. The frequency of positive feedback from others was positively correlated with performance using subordinate descriptions, and the frequency of positive feedback from supervisors also was positively correlated with performance when supervisor descriptions were used. Nevertheless, the relatively low level of the correlation leads us to conclude that, in this sample, frequency was not very closely associated with performance.

The last set of descriptions dealt with the way in which the feedback was given -- manner and public versus private. We would expect these dimensions should show little or no relationship to performance. They are more closely associated, theoretically, with affective responses such as job satisfaction and commitment. Thus was indeed the case for subordinate descriptions. However, for supervisory descriptions the manner of feedback from supervisors, both positive and negative, covaried positively with performance and negative subordinate feedback correlated negatively with it. The positive correlations are consistent with the notion that superiors who believed they were very pleasant as they handled feedback also may have tended to feel that they behaved this way more for their high performers. The negative correlation does not seem to have any easy explanation. Finally, giving negative feedback publicly was related to higher performance by supervisors.

When the more affective responses of job satisfaction and commitment were correlated with feedback descriptions, three general patterns emerged. First, the two variables rarely correlated with superior descriptions of the feedback. This fact has been observed all along. Second, commitment showed little relationship to descriptions by either supervisors or subordinates. Finally, the sign of the significant correlations between feedback and job satisfaction or commitment were, for the most part, negative. For timing, specificity, and frequency this may have been due to a possible confounding of job scope with the opportunity to give quick, specific feedback frequently. However, the argument is weakened somewhat by the fact that manner of giving feedback also correlated negatively with job satisfaction.

DISCUSSION

In many ways more issues were raised than were resolved by these data. However, the issues raised are important ones that must be addressed if we are to understand how feedback affects behavior.

The most glaring issue is associated with the observed lack of agreement between supervisors and subordinates on the nature of feedback to the former. The effect of this was obvious in the near zero correlations between supervisor and subordinate descriptions of the same feedback dimensions. This disagreement then led to extremely different patterns of correlations with subordinate responses depending upon whether subordinate or superior descriptions of feedback were used.

Although we only used supervisors as additional observers of the feedback environment for given incumbents, we believe that the disagreement probably would have existed for other observers. Hackman and Lawler (1971) were one of the few who measured the amount of feedback using supervisors, incumbents, and expert observers. They were unable to find any agreement among the three sets. It was our original belief that if we were to describe feedback in much more specific terms than did Hackman and Lawler, the disagreement would be lessened. Unfortunately such was not the case.

We believe that before research can continue on to deal with the effects of feedback, it must first be learned what conditions are necessary to create given perceptions of the feedback environment. In other words, ways for training superiors and subordinates to observe feedback dimensions must be developed. Also feedback perceptions must be collected from individuals working under known feedback conditions. If feedback is to be used

effectively, we must at least understand how feedback is perceived by the focal person. All we know now is that it is perceived by them to be different than it is perceived to be by supervisors. It is time to back up and gain some control over environments before going to the field. It is our intention to conduct research on this issue in the near future.

Realizing the fact that we do not understand very clearly how perceptions of feedback characteristics are formed, we still can explore the link between the perceptions, once they exist, and responses of the job incumbent. When this is done, it must be kept clearly in mind that the job incumbent furnished both the descriptions and the response measures for all variables except performance. Knowledge of the perceptions-to-response relationships should form a basis on which to understand responses to feedback when the link between feedback environments and perceptions of feedback are better understood.

The data presented here lead to several generalizations with regard to incumbents' beliefs and responses as they relate to their perceptions of feedback. These have been described in detail in the results so we shall only respond to some of the more global patterns of findings. The first of these is the tendency for reports about the accuracy of feedback to covary with timing, specificity, frequency, and the way in which feedback is given for feedback from most sources but, in particular, the supervisor. Since a belief that the feedback from a particular source is accurate implies that the recipient of the feedback accepts the feedback from the source as a reasonable reflection of his or her performance (Ilgen et al, 1977), the covariation between perceptions of feedback dimensions implies that the way in which feedback is given may influence acceptance. Therefore, it may be possible for sources to influence the extent to which their feedback is accepted by varying the way it is given.

The second set of data in which a consistent pattern emerged dealt with the perceived effects of feedback on goal related issues. Here, in general, timing, specificity and frequency were positively correlated with all goal aspects except difficulty. The ratings of difficulty presented an interesting exception. First, the more frequent positive feedback was from others the less difficult were their goals as seen by the feedback recipients. In a similar vein, the more feedback was given in a very positive way even when the feedback itself was negative, the less difficult were the goals seen to be. This implies that while improving the quality of feedback by giving it more frequently, more specifically, etc. may increase the extent to which goals are set and the willingness to respond but it also may lead to setting easier goals. Since difficult goals have consistently been found to be associated with higher performance than easy goals (see Latham and Yukl, 1975 for a review of goal setting in field settings), a dilemma for job design and supervisory practices exists. The same features which lead to greater commitment to goals may also foster the setting of lower goals. While the data presented here only suggest this effect, it should be explored more fully.

Finally, turning to responses to feedback, the data showed some significant relationships to performance, satisfaction, and commitment, but the inconsistency of these relationships emphasized the issues raised by using descriptions and responses from the same observer. In the case of performance, supervisors rated both the feedback and the performance for the focal subordinate. Therefore, the performance data correlating supervisory ratings of performance with subordinate descriptions of the feedback were more interesting than superior ratings of both.

With regard to performance and subordinate descriptions of their own feedback those correlations that were significant indicated that frequency and timing tended to be positively related to performance as was expected. But specificity of feedback was negatively related to performance. The reversal on the latter was unexpected but may have been due to the fact that those who needed and received very specific feedback may have been lower performers who others felt needed to get very specific feedback because of their performance. There is enough other evidence that specificity helps to set goals and to improve the directive quality of feedback to suspect that the observed correlations were due to external factors rather than a direct negative influence of specificity on feedback.

CONCLUSION

The data presented here clearly point to a need to better understand the link between actual feedback and perceptions of the feedback. The purpose of the research was to explore how actual feedback influences the individual's beliefs and responses to feedback. Although some interesting relationships were found, the disagreement between supervisors and the focal individuals as to the nature of the feedback received by these individuals tempers any conclusions drawn from the data. Clearly, conclusions cannot be made about the true nature of the feedback. Future research must focus on understanding the way feedback is perceived before prescriptive guides regarding feedback for performance appraisal, coaching, or job design can be made with confidence.

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